## REMARKS

Claims 1, 3-4, 6-12 and 16-21 are all the claims pending in the present application and stand finally rejected. Reconsideration and allowance of all pending claims are respectfully requested in view of the following remarks.

## CLAIM REJECTIONS.

### 35 U.S.C. § 102

Claims 10, 12, 16 and 20-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,636,361 to Ingerman. Applicant respectfully traverses these rejections for the following reasons.

Ingerman fails to teach or suggest a memory device including a memory array having a first portion and a second portion as recited in claim 10 (and claims 12, 16 and 20-21 by virtue of their dependency on claim 10). The instant Office Action fails to address this claimed limitation and it is respectfully submitted that the separate caches 34, 52 of Ingerman cannot legitimately be interpreted as "a memory device including a memory array having a first portion and a second portion...." Since the claimed "memory device" is not disclosed by Ingerman, claims 10, 12, 16 and 20-21 cannot be anticipated by Ingerman. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

### 35 U.S.C. § 103

Claims 1, 3-4, 6-9 and 18-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over one of the combinations of U.S. Patent 5,140,681 to Uchiyama in view of U.S. published application 2002/0184445 to Cherabuddi, Cherabuddi in view of Uchiyama and/or Ingerman in view of Cherabuddi. Applicant respectfully traverses these rejections for the following reasons.

Respectfully, the Examiner's stated reason for modifying Uchiyama with Cherabuddi (claims 1 and 6) or modifying Cherabuddi with Uchiyama (claims 1, 3-4 and 6-9), i.e., to provide

improved performance and efficient memory usage, is no more an objective reason than stating, "its better." Without providing any supporting evidence or reasonable explanation how the performance of the Uchiyama main memory would be improved or why the memory usage would be more efficient," it is merely a conclusory statement insufficient to establish *prima facie* obviousness. See, *In re Mills*, 916 F.2d 680, 683 (Fed. Cir. 1990) and MPEP 2144.08 (III).

As to the properness of combining Ingerman with Cherabuddi (claims 18 and 19), and for which the Final Office Action did not address the Applicant's previous arguments, the Office Action relies on various different memory devices (separate caches 34, 52 and main memories 42, 48) of Ingerman as "a memory array." Further the Office Action somehow infers that distinctly different memory devices could be dynamically allocated depending on operational load of first and second processors as taught by Cherabuddi. Applicant notes however that Cherabuddi is dedicated to the dynamic allocation of a single cache resource which is not even remotely similar to allocation between various separate memory devices as allegedly disclosed by Ingerman. Applicant respectfully submits that since the results of this proposed combination are barely comprehendible it is reason of itself that there is no proper motivation for combining these references as suggested in the Office Action.

Since no proper motivation exists for combining the references as suggested in the Office Action, *prima facie* obviousness has not been established and the §103 rejections should be withdrawn.

Furthermore, it is respectfully submitted that none of the cited references, alone or in combination, teaches or suggests the claimed limitation of a *memory array adapted to dynamically alter a size of the first portion and the second portion of the memory array depending on an operational load of the first processor or the second processor while the first portion of the memory array is accessible only by a first processor and the second portion is accessible only by a second processor* as recited in claims 1, 3-4 and 6-9. The Office Action alleges this is disclosed by Cherabuddi at par. [0025]. However, while Cherabuddi mentions dynamically allocating resources of cache memory 23 in response to needs of the CPUs,

Cherabuddi does not teach or suggest altering the size of the first portion and second portion which still maintain exclusivity for access by respective first and second processors.

Instead, Cherabuddi teaches away from this claim limitation by disclosing the ability to alternate partitioning of a single cache memory between two modes as discussed in par. [0009-0011]. That is, a two-thread mode (where both processors are active) and each processor uses a corresponding dedicated portion of the cache memory (i.e., sharing the cache) and a one-thread mode (only one processor is active), where the cache can be entirely allocated such that the active processor can use the entire cache including both memory partitions 23a, 23b. This means that in a one-thread mode, the alleged second memory partition may be accessible by the first processor, in express contrast to Applicant's claims.

In response, the Examiner stated that Cherabuddi is cited for "dynamically altering a first and second memory portion depending on an operational load of a first and second processor and not for teaching exclusive access to the memory." (5/25/04 Office Action pg. 6). Applicant respectfully points out the Examiner's comments on page 4, numbered paragraph 6 of the Final Office Action dated 11/12/2004 where it is alleged that Cherabuddi discloses "the memory array is adapted such that the first portion of the memory array is accessible only by a first processor...and the second portion of the memory array is accessible only by a second processor." Thus the Office Action does incorrectly rely on Cherabuddi to teach this feature when in fact it teaches the opposite. Further, neither Uchiyama nor Ingerman teach this feature.

Since Cherabuddi, Uchiyama and/or Ingerman, taken alone or in combination fail to teach or suggest the features of the pending claims, it is submitted these claims are patentable over the cited art. In view of the foregoing, reconsideration and withdrawal of all §103 rejections are respectfully requested.

**ALLOWABLE SUBJECT MATTER.**

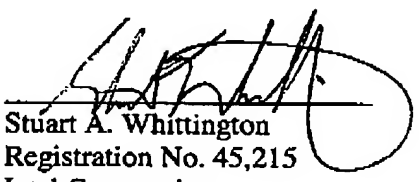
While not expressly indicated in the present Office Action, claim 17 is assumed by Applicant to include allowable subject matter since no rejection has been made for this claim.

Accordingly, Applicant solicits an express indication of allowable subject matter in the next official communication. If however Applicant's assumption is incorrect, the Examiner is respectfully requested to issue a new Office Action, resetting the period for Applicant's response, so that the Applicant may be given fair opportunity to address all issues prior to Appeal.

**CONCLUSION.**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below. Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee or deficiency thereof, except for the Issue Fee, is to be charged to **Deposit Account # 50-0221**.

Respectfully submitted,



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